

IN THE CLAIMS:

Claims 1- 2. (Cancelled)

3. (Currently Amended) A display device comprising a pixel portion and a driver circuit portion on a substrate, said pixel portion comprising:

a semiconductor film comprising a plurality of channel forming regions, a plurality of impurity regions, a source region, and a drain region; and

a gate electrode overlapping with the plurality of channel forming regions and some of the plurality of impurity regions, with a gate insulating film interposed therebetween,

wherein said some of the plurality of impurity regions are located between the plurality of channel forming regions in the semiconductor film and contain a low concentration impurity region and a high concentration impurity region, and

wherein a thickness of a gate insulating film of a TFT in said driver circuit portion is thinner than that of the gate insulating film of a TFT in the pixel portion.

4. (Currently Amended) A display device comprising a pixel portion and a driver circuit portion on a substrate, said pixel portion comprising:

a semiconductor film comprising a plurality of channel forming regions, a plurality of impurity regions, a source region, and a drain region; and

a gate electrode overlapping with the plurality of channel forming regions and some of the plurality of impurity regions, with a gate insulating film interposed therebetween,

wherein said some of the plurality of impurity regions are located between the plurality of channel forming regions in the semiconductor film and contain a low concentration impurity region and a high concentration impurity region,

wherein a gate insulating film of a TFT in said driver circuit portion and a dielectric of a storage capacitor formed in said pixel portion comprise the same material and have the same film thickness, and

wherein the thickness of the gate insulating film of the TFT in said driver circuit portion is thinner than that of the gate insulating film of a TFT in the pixel portion.

5. (Currently Amended) An electronic equipment comprising a the display device according to claim 3, wherein said electronic equipment is selected from the group consisting of a video camera, a digital camera, a projector, a projection TV, a goggle type displays display, a navigation system, a sound reproduction device, a notebook type personal computer, a game machine, a portable information terminal, a mobile computer, a portable telephone, a portable game machine, an electronic books book, and an image reproduction deviees device having a recording medium.

6. (Currently Amended) A The display device according to claim 3, wherein said plurality of impurity regions comprises a plurality of low concentration impurity regions, a high concentration impurity region, and wherein said some of the plurality of low concentration impurity regions and the high concentration impurity region are located between the plurality of the channel forming regions in the semiconductor film.

7. (Currently Amended) A The display device according to claim 6, wherein each of said plurality of low concentration impurity region regions contains an element at a concentration of 2×10^{16} to 5×10^{19} atoms/cm³, and said high concentration impurity region contains the element at a concentration of 5×10^{19} to 3×10^{21} atoms/cm³.

8. (Currently Amended) A The display device according to claim 4, wherein said plurality of impurity regions comprises a plurality of low concentration impurity regions, a high concentration impurity region, and wherein said some of the plurality of low concentration impurity regions and the high concentration impurity region are located between the plurality of the channel forming regions in the semiconductor film.

9. (Currently Amended) A The display device according to claim 4, wherein at least two of said plurality of impurity regions overlapped with the gate electrode contain an element at a concentration of 2×10^{16} to 5×10^{19} atoms/cm³, and at least one of the plurality of impurity regions overlapped with the gate electrode contain contains the element at a concentration of 5×10^{19} to 3×10^{21} atoms/cm³.

10. (Currently Amended) An electronic equipment comprising a the display device according to claim 4, wherein said electronic equipment is selected from the group consisting of a video camera, a digital camera, a projector, a projection TV, a goggle type displays display, a navigation system, a sound reproduction device, a notebook type personal computer, a game machine, a portable information terminal, a mobile computer, a portable telephone, a portable game machine, an electronic books book, and an image reproduction deviees device having a recording medium.

Claims 11-14. (Cancelled)

15. (Cancelled)

16. (Currently Amended) A display device comprising a pixel portion and a driver circuit portion on a substrate, said pixel portion comprising:
a semiconductor film comprising at least two channel forming regions, at least one first impurity region, at least one second impurity region, a source region, and a drain region; and

a gate electrode overlapped with said two channel forming regions and the first impurity region, and a part of the second impurity region with a gate insulating film interposed therebetween,

wherein one of the two channel forming region is located between the first impurity region and the second impurity region,

wherein a thickness of a gate insulating film of a thin film transistor TFT in said driver circuit portion is thinner than that of the gate insulating film in the pixel portion.

17. (Currently Amended) An electronic equipment comprising a the display device according to claim 16, wherein said electronic equipment is selected from the group consisting of a video camera, a digital camera, a projector, a projection TV, a goggle type displays display, a navigation system, a sound reproduction device, a notebook type personal computer, a game machine, a portable information terminal, a mobile computer, a portable

telephone, a portable game machine, an electronic ~~books~~ book, and an image reproduction ~~deviees~~ device having a recording medium.

18. (Currently Amended) A display device comprising a pixel portion and a driver circuit portion on a substrate, said pixel portion comprising:

a semiconductor film having at least two channel forming regions, first low concentration impurity regions and a second low concentration impurity ~~regions~~ region, a high concentration impurity ~~regions~~ region, a source region, and a drain region; and

a gate electrode overlapping with said two channel forming regions, the first low concentration impurity regions, the high concentration impurity region, and ~~portions~~ a portion of the second impurity ~~regions~~ region, with a gate insulating film interposed therebetween,

wherein the high concentration impurity region is located between the two channel forming regions, and

wherein a gate insulating film of a TFT in said driver circuit portion and a dielectric of a storage capacitor formed in said pixel portion comprise the same material and have the same film thickness.

19. (Currently Amended) A The display device according to claim 18, wherein a thickness of a gate insulating film of a ~~thin film transistor~~ TFT in said driver circuit portion is thinner than that of the gate insulating film in the pixel portion.

20. (Currently Amended) An electronic equipment comprising a the display device according to claim 18, wherein said electronic equipment is selected from the group consisting of a video camera, a digital camera, a projector, a projection TV, a goggle type ~~displays~~ display, a navigation system, a sound reproduction device, a notebook type personal computer, a game machine, a portable information terminal, a mobile computer, a portable telephone, a portable game machine, an electronic ~~books~~ book, and an image reproduction ~~deviees~~ device having a recording medium.

21. (Currently Amended) A The display device according to claim 3, wherein the plurality of impurity regions have the same conductivity as the source region and the drain regions region.

22. (Currently Amended) A The display device according to claim 9, wherein the element belongs to group XV in the periodic table.

23. (Currently Amended) A The display device according to claim 4, wherein the contain contains impurity regions have the same conductivity as the source region and the drain regions region.

24. (Currently Amended) A The display device according to claim 6, wherein the high concentration impurity region ~~are~~ is located between a pair of the plurality of low concentration impurity regions under the gate electrode.

25. (Currently Amended) A The display device according to claim 7, wherein the element belongs to group XV in the periodic table.

26. (Currently Amended) A The display device according to claim 16, wherein the first impurity region and the second impurity regions region have the same conductivity as the source region and the drain regions region.

27. (Currently Amended) A The display device according to claim 16, wherein each of the first impurity region and the second impurity region contains an element at a concentration of 2×10^{16} to 5×10^{19} atoms/cm³, and

wherein the semiconductor film further comprises a third impurity region including the element at a concentration of 5×10^{19} to 3×10^{21} atoms/cm³.

28. (Currently Amended) A The display device according to claim 27, wherein the element belongs to group XV in the periodic table.

29. (Currently Amended) A The display device according to claim 16, wherein a gate insulating film of a TFT in said driver circuit portion and a dielectric of a storage capacitor formed in said pixel portion comprise the same material and have the same film thickness.

30. (Currently Amended) A The display device according to claim 18, wherein the first low concentration impurity region, and the second low concentration impurity regions region and the high concentration impurity region have the same conductivity as the source region and drain regions region.

31. (Currently Amended) A The display device according to claim 18, wherein the high concentration impurity region is located between a pair of the first low concentration impurity regions.

32. (Currently Amended) A The display device according to claim 18, wherein each of the first low concentration impurity regions and the second low concentration impurity region contains an element at a concentration of 2×10^{16} to 5×10^{19} atoms/cm³, and the high concentration impurity region includes the element at a concentration of 5×10^{19} to 3×10^{21} atoms/cm³.

33. (Currently Amended) A The display device according to claim 32, wherein the element belongs to group XV in the periodic table.

34. (Cancelled)

35. (Previously Presented) A semiconductor device comprising:
a semiconductor film having at least first and second channel forming regions, first, second, third, and fourth low concentration impurity regions, a high concentration impurity regions, a source region, and a drain region; and

a gate electrode overlapping with the first and second channel forming regions, the second and third low concentration impurity regions, the high concentration impurity region,

and portions of the first and fourth low concentration impurity regions, with a gate insulating film interposed therebetween,

wherein the high concentration impurity region is located between the first and second channel forming regions.

36. (Currently Amended) A The semiconductor device according to claim 35, wherein the first, second, third, and fourth low concentration impurity regions and the high concentration impurity region have the same conductivity as the source region and the drain regions region.

37. (Currently Amended) A The semiconductor device according to claim 35, wherein the high concentration impurity region is located between the second and third low concentration impurity regions in the semiconductor film.

38. (Currently Amended) A The semiconductor device according to claim 35, wherein each of said first, second, third, and fourth low concentration impurity region regions contains an element at a concentration of 2×10^{16} to 5×10^{19} atoms/cm³, and said high concentration impurity region contains the element at a concentration of 5×10^{19} to 3×10^{21} atoms/cm³

39. (Currently Amended) A The semiconductor device according to claim 38, wherein the element belongs to group XV in the periodic table.

40. (Currently Amended) A The semiconductor device according to claim 35, wherein a thickness of a gate insulating film of a thin film transistor TFT in said driver circuit portion is thinner than that of the gate insulating film in the pixel portion.

41. (Currently Amended) A The semiconductor device according to claim 35, wherein a gate insulating film of a TFT in said driver circuit portion and a dielectric of a storage capacitor formed in said pixel portion comprise the same material and have the same film thickness.

42. (Currently Amended) An electronic equipment comprising ~~a the~~ the semiconductor device according to claim 35, wherein said electronic equipment is selected from the group consisting of a video camera, a digital camera, a projector, a projection TV, a goggle type ~~displays~~ display, a navigation system, a sound reproduction device, a notebook type personal computer, a game machine, a portable information terminal, a mobile computer, a portable telephone, a portable game machine, an electronic ~~books~~ book, and an image reproduction ~~deviees~~ device having ~~a~~ a recording medium.